

---

## **Table of Contents**

---

<b>Introducing <i>MathView</i> .....</b>	<b>1</b>
What is <i>MathView</i> ?.....	2
How to Use this Guide.....	3
Installing on a Macintosh.....	4
Installing on Windows.....	8
Writing Conventions.....	11
A First Example.....	14
<b>Preliminaries.....</b>	<b>27</b>
<i>MathView</i> Files...The Notebook.....	28
Beginning Concepts.....	31
Operators.....	37
Entering and Selecting Equations.....	38
Command Manipulations.....	45
Hand-Mouse Manipulations .....	57
Name Declarations and Transformation Rules.....	62
Case Theories.....	67
Graph Theories .....	70
Tables.....	84
Matrices .....	88
<b>Functions.....</b>	<b>97</b>
Function Notation.....	98
Linear Functions.....	102
Quadratic Functions.....	104
Polynomial Functions.....	107
Rational Functions.....	109
Exponents & Logarithms.....	113
Exponential & Logarithmic Functions .....	118
Trigonometric Functions.....	121
Scatter Plots & Data Analysis.....	126
Function Algebra & Composite Functions.....	130
Piecewise-Defined Functions .....	133
Functions of Two Variables.....	134
Parametrized Curves and Polar Coordinates .....	138
Solving Equations Graphically.....	142
<b>Differential Calculus.....</b>	<b>145</b>
Limits.....	146
Slope of a Curve .....	151
Derivatives of Functions with One Variable .....	156
Higher Order Derivatives.....	161
Implicit Differentiation.....	163
Derivatives of Functions with more than one Variable.....	165
<b>Integral Calculus.....</b>	<b>169</b>
Integration.....	170
Definite Integration.....	178
<b>Differential Equations.....</b>	<b>187</b>
Testing Solutions .....	188
Simple Integration with Initial Value .....	190

---

Separation of Variables .....	192
First Order Linear Equations.....	194
Numerical Methods .....	197
<b>Appendix.....</b>	<b>201</b>
Universal Keystrokes.....	202
Macintosh Shortcut Keystrokes.....	203
Windows Shortcut Keystrokes .....	204
Macintosh Menu Items and Palette Buttons.....	205
Windows Menu Items and Palette Buttons.....	209
<i>MathView</i> and the Internet.....	213
Divert Cascade.....	218
Break Cascade .....	223
Frequently Asked Questions.....	225
<b>Index.....</b>	<b>229</b>

